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### Tsl and LP-BM5: a comparison of two murine retrovirus models for HIV.

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The ts1 murine leukemia virus produces an immunodeficiency state in mice that parallels human immunodeficiency virus (HIV) infection in humans. Other murine leukemia viruses, such as LP-BM5 used in the murine acquired immune deficiency virus (MAIDS) model, have been studied extensively as a small animal model for HIV research, but lack many key similarities to HIV. Mice infected with ts1, however, utilize CD4 target cells for infection, undergo neuronal loss and demyelination, and develop clinical immunodeficiency. These features make this retrovirus in many ways an ideal candidate for a small animal model for HIV research. In this review article, the early development, the molecular and clinical pathogenesis of both the ts1 mutant of the Moloney murine leukemia virus and LP-BM5 are examined. Based on an extensive evaluation of the literature on LP-BM5 and ts1, it is concluded that the ts1 virus may serve as a better animal model to human retrovirus infection.

PMID: 11398815 [PubMed - indexed for MEDLINE]

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